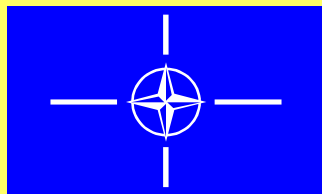




NBC IN NATO TODAY



Worldwide Chemical Conference
11 July 2001

Dr. Charles N. Davidson
Director, USANCA

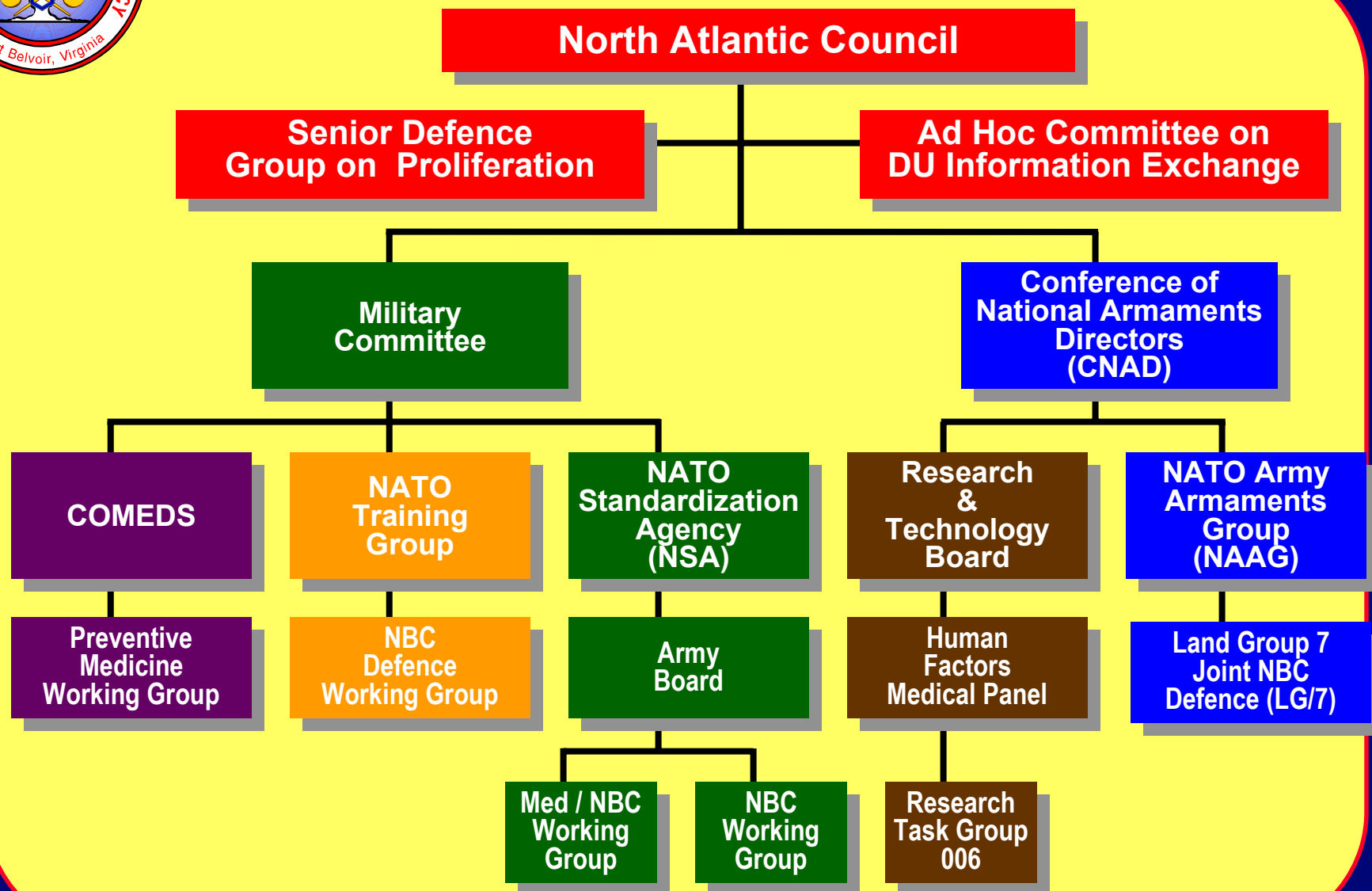


OUTLINE

- **Who does what to whom?**
- **What's hot?**
- **Getting to "STANAG"**
- **Influencing the process**



NBC in NATO





NATO LAND GROUP 7



AREAS OF RESPONSIBILITY

- **Tri-Service body reporting to the NATO Army Armaments Group (NAAG)**
- **Considers NBC environments encountered in both war and operations other than war**
- **Addresses materiel aspects of NBC command guidance, NBC hazard avoidance, NBC force protection, NBC contamination control, and NBC medical countermeasures that are carried and administered by non-medical personnel**



NATO LAND GROUP 7



MISSION

- **Standardize/Make interoperable**
 - **Methods of achieving NBC survivability of all personnel and equipment**
 - **NBC defense equipment**
- **Methods**
 - **Direct RDTE collaboration**
 - **STANAGs, AEPs, triptychs**
- **Meets twice a year**
- **6 subordinate groups (5 standing Sub-Groups, 1 temporary Working Group)**



LG/7 SUBORDINATES



Sub-Groups

- Air (ASG)
- Naval (NSG)
- Nuclear Protection (NPSG)
- Challenge (CSG)
- Sampling and Identification of Biological, Chemical and Radiological Agents (SIBCRA SG)

Working Group

- Skin Toxicity (WG/1)

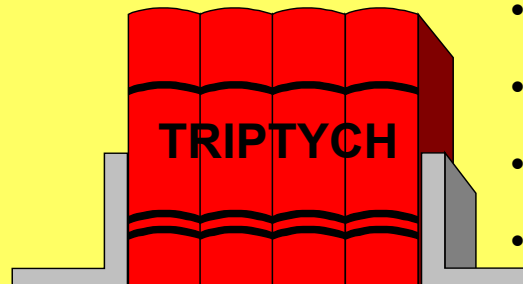


LG/7 ACHIEVEMENTS



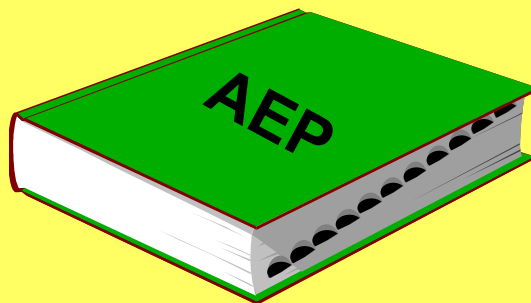
15

- Mask (2)
- COLPRO (2)
- Anti-emetic (2)
- Bio test kit
- AEP-covers (8)



7

- Decon
- COLPRO
- Masks
- Overgarments
- CB detection
- RADIACs
- Nuclear burst detection



14

- Equipment survivability (9)
- Effects simulation
- Tank crew protection
- SICA/SIRA (2)
- Overgarment rqmts



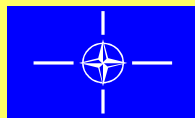
LG/7 ACHIEVEMENTS



- **Feasible biotechnology applications**
 - Aqueous decontaminants
 - Hand held biological test kit
 - Automated biodetector
- **Live agent SICA field exercise in Poland**
- **Low level radiation command guidance**
 - Operational exposure guide (ACE Directive 80-63)
 - Decon guidance
 - Internal dose estimation
- **Preliminary skin toxicity values**
- **Guide for air operations in NBC environment**
- **Agreed CB challenge levels**
- **Anti-vomiting pill for radiation sickness**



LG/7 PRIORITY ACTIONS



- **Address Priority I DCI issues (SF 4 and SF 5)**
 - Only 2 NAAG Pri I issues; both are NBC
 - SF 4 -- Individual Protection (CA pilot)
 - SF 5 -- Standoff Detection (US pilot) and COLPRO (UK pilot)
- **Reassess agreed chemical challenge levels**
- **Assess UAVs for NBC reconnaissance**
- **Develop improved skin toxicity levels**
- **Exercise sampling and ID procedures for radioactive contamination**
- **Exercise SIBA procedures in the field**



LG/7 PRIORITY ACTIONS



- **Develop unified approach to EM protection of equipment**
- **Revise decon, detection, COLPRO triptychs**
- **Establish techniques for satellite nuclear survivability**



DCI TASK SF 5[a]



LG/7

Standoff CB Detection

“NATO nations should pursue, on a co-operative basis where appropriate, further work on the development of standoff detection equipment against chemical and biological agents with a view to possible acquisition...”



DCI TASK SF 5[a]



Standoff CB Detection

- **U.S. is pilot nation**
- **Already done:**
 - Assessed capabilities within NATO nations
 - Chaired 8-nation Team of Experts (TOE) meeting
 - Drafted Mission Need Document (MND)
 - Submitted proposal for NATO R&D funds
- **Next steps:**
 - Obtain mission analysis
 - Chair second TOE meeting
 - Complete MND
 - Push funding issue
 - Update NAAG continually



NATO NBC DEFENSE OPERATIONS INTERSERVICE WG (NBC WG)



AREAS OF RESPONSIBILITY

- **Tri-Service body reporting to the NSA Army Board**
- **Considers NBC environments encountered in both war and operations other than war**
- **Addresses operational aspects of NBC command guidance, NBC hazard avoidance, NBC force protection, and NBC contamination control**



NBC WG



MISSION

- **Standardize**
 - NBC operational procedures, doctrinal concepts, message formats, commanders guides, capability evaluation criteria
- **Methods**
 - STANAGs
 - ATPs, AXP
- **Meets once a year**
- **2 subordinate groups (NBC defensive doctrine-- ATP-59, NBC warning and reporting--ATP-45)**



NBC WG ACHIEVEMENTS



- **22 NBC STANAGs**
 - 4 more in draft
- **Overarching NBC defense doctrine (ATP-59)**
- **Comprehensive NBC hazard warning and reporting system (ATP-45)**
- **Input to ACE Directive 80-63 on protection against low-level radiation and ACE Directive 80-64 on defensive measures against toxic industrial chemicals**
- **Prioritized BW agent list for NATO use**
- **Radiation exposure state (RES) categories for high and low-level radiation**
- **Nuclear target analysis and strike warning**

NBC WG PRIORITY ACTIONS



- **Complete revision of capstone ATP-59 on NBC defense doctrine**
- **Continue improving ATP-45; work toward full declassification**
- **Beef up BW defense considerations in STANAGs**
- **Develop operational guidance when encountering depleted uranium (DU)**
- **Introduce sieverts as a unit for assessing radiation exposure**
- **Streamline procedures for STANAG release to non-NATO nations**



NATO NBC MEDICAL WG (NBC/MED WG)



AREAS OF RESPONSIBILITY

- **Tri-Service body reporting to the NSA Army Board**
- **Considers NBC environments encountered in both war and operations other than war**
- **Addresses NBC medical countermeasures (except for items carried and administered by the warfighter)**



NBC/MED WG

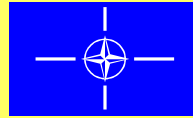


MISSION

- **Standardize**
 - NBC medical procedures, doctrinal concepts, training, commanders guides to casualty estimation
- **Methods**
 - STANAGs
 - AMedPs
- **Meets once a year**
- **1 subordinate group (Biomed Advisory Committee)**



NBC/MED WG ACHIEVEMENTS



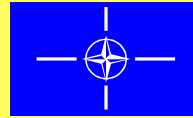
- **6 NBC STANAGs**
 - 9 more in draft
- **Handbook on medical aspects of NBC defense (AMedP-6)**
- **Medical support CONOPS in NBC environments (AMedP-7)**
- **Planning guides for NBC casualty estimation (AMedP-8)**

NBC/MED WG PRIORITY ACTIONS



- **Ratify revised AMedP-6**
- **Complete revision of AMedP-7**
- **Hold interdisciplinary biological defense workshop**
- **Finalize procedures on recording low level radiation exposure for medical purposes**
- **Finalize STANAG on biological warfare immunization program**

OTHER STANDARDIZATION ACTIVITIES



- **NATO Project Group 31**
- **NATO Long Term Scientific Study (LTSS) on defensive aspects of CB warfare**
- **NATO Research Task Group on Radiation Injury and Medical Countermeasures**
- **NATO Training Group NBC Defence Working Group**



PROJECT GROUP 31



- **Non-caustic decontaminants**
- **Enzyme-based**
- **U.S. chairs (FR, GE, IT, TU, UK, US)**
- **Latest (13th) meeting in May 2001**
- **To date: Conducted large scale tests and demos of enzymes against nerve agents**
- **Next steps:**
 - **Increase efforts on blister agents**
 - **Study application methods**
 - **Continue work on biological agents**
 - **Conduct LG/7 demo in September 2002**
- **Progressing well**



DECONTAMINANTS



Live Agent Testing

- Three sets of trials held at Cazaux, FR (1998-99); Munster, GE (1999)
- Enzymes from GE and US tested in fire-fighting sprays or foams, and laundry detergents
- GD destruction greater than 99% in less than 15 minutes
- Next trials in Cazaux just prior to Sep 02 LG/7 meeting





LONG TERM SCIENTIFIC STUDY

NATO LTSS on Defensive Aspects of CB Warfare

Objective: Identify technologies and means that can support CB defense in the next century, based on forecast threats for the next 10-15 years. Identify knowledge gaps and suggest remedies.





LONG TERM SCIENTIFIC STUDY

NATO LTSS on Defensive Aspects of CB Warfare

- **Classified study; no PfP participation**
- **21-month effort began February 2000**
- **Last previous version dated 1988**





LONG TERM SCIENTIFIC STUDY

NATO LTSS on Defensive Aspects of CB Warfare

Topics being covered:

- Threat and treaty implications
- Detection (including ID, warning)
- Physical protection
- Medical countermeasures
- Contamination control
- Miscellaneous (e.g., modeling & risk management)





RESEARCH TASK GROUP

NATO TG 006 on Radiation Injury and Medical Countermeasures

- 3-year mission to develop **scientific basis** for new and improved methods to **prevent and treat casualties and long-term health effects of evolving radiation threats** in military operations
- Final meeting in Oct 01
- Focusing on:
 - Physical/biodosimetry
 - Preventive treatment
 - Radiation injury assessment





TRAINING WORKING GROUP

NATO Training Group NBC Defence WG

- **Tri-Service body addressing NBC (including medical) training issues**
- **Responsible for no STANAGs or APs**
- **Provides training input to STANAGs produced by others**
- **Produced CDs as training aids for ATP-45 on NBC warning and reporting**





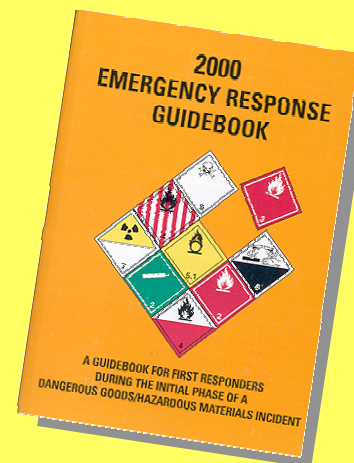
HOT TOPICS

“NATO nations should pursue, on a co-operative basis where appropriate, further work on the development of standoff detection equipment against chemical and biological agents with a view to possible acquisition...”

Standoff Detector Development



Depleted Uranium Guidance



Toxic Industrial Hazard Guidance

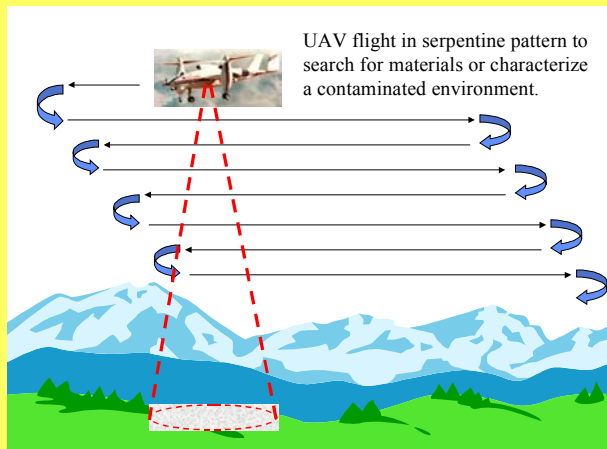
**RES 1A
RES 1B
RES 1C
RES 1D
RES 1E**

RES 1

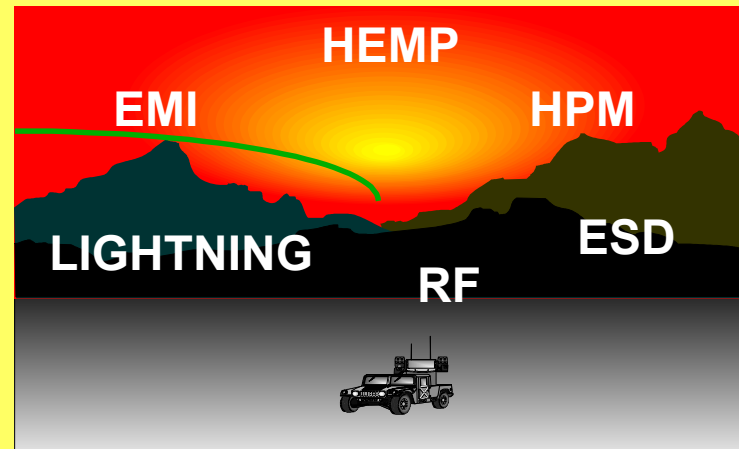
Low Level Radiation Guidance



HOT TOPICS



Sensors for UAV Platforms



Unified EM Protection of Equipment



Sampling & Identification Exercises



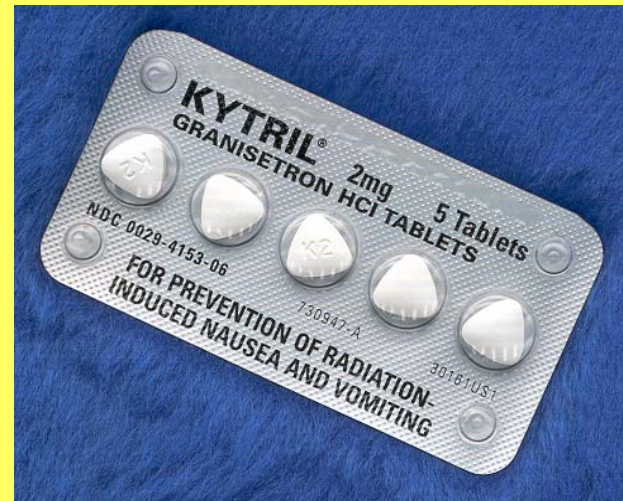
Biological Defense Doctrine



HOT TOPICS



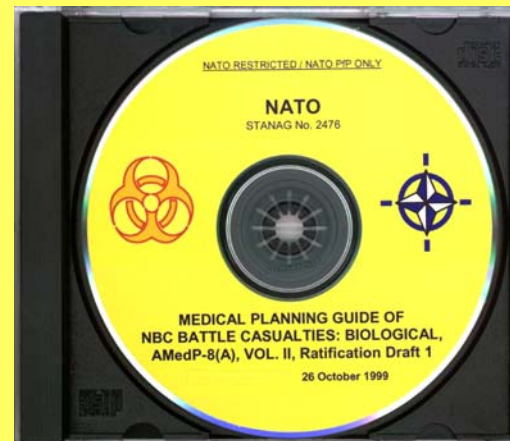
Non-Caustic Decontaminants



Radiation Injury Countermeasures

LTSS

Promising Technologies



Casualty Predictions



GETTING TO “STANAG”

2 Routes!

DIRECT

- Custodian Nation
- Standardization Proposal
(3-4 page rationale)
- “Study” Draft(s)
(in STANAG format)
- Ratification Draft
(seeks national agreement)
- >10 Ratifications
- Promulgated STANAG

INDIRECT

- Pilot Nation or Working Group
- Allied Publication Draft(s)
(AEP, ATP, AMedP, etc)
- NATO Group Approval
- Published Allied Pub
- Coversheeting Action
- >10 Ratifications
- Promulgated STANAG



GETTING TO “STANAG”

STANAG Revision

Stand-Alone STANAG

- Custodian Nation
- Edition 2 STANAG Draft(s)
- NATO Group Approval
- Editorial or Substantive?
- If Editorial: No Ratification Process; Promulgated Edition 2 STANAG
- If Substantive: Ratification Draft
- >10 Ratifications
- Promulgated Edition 2 STANAG

Coversheet STANAG

- Pilot Nation or Working Group
- Edition 2 Allied Publication Draft(s)
- NATO Group Approval
- Published Edition 2 Allied Publication
- No Ratification Process
- Promulgated Edition 2 STANAG



INFLUENCING THE PROCESS

What is the process?

- **STANAG Development (see previous slides)**
- **Meeting Participation**
 - Study the agenda
 - Draft position papers
 - Hold position meeting
 - Coordinate positions formally
 - Use positions at NATO meeting
 - Resolve items in the margins
 - Report meeting results
 - Task out/execute meeting actions
 - Ride herd on actions to meet suspenses
 - Repeat cycle



COORDINATION CHOPS



- **Defense/Joint**

- OATSD(NCB)(CB/M)
- OASD-ISA/NA
- OUSD(A&T)/IP
- J5
- JSIG, JSMG
- DTRA

- **Other Services**

- NAVSEA/05L4
- SAF/APPS

- **Army**

- SAUS-IA-DSC
- SAAL-ZCS
- DAMO-SSD
- DAPR-FDB
- DAMI-IR
- DALO-POD
- DASG-HCO
- SBCCOM
- MANSCEN/DCD
- USANCA/ATNA-ZA



INFLUENCING THE PROCESS

How can we impact it?

- **STANAG Development**
 - Accomplish assigned actions on time
 - Provide detailed comments early-on
 - Confine comments on ratification drafts to “Yes”, “No”, or “Yes, but”
- **Meeting Participation**
 - Let your interest be known
 - Contribute to drafting positions
 - Attend position meetings
 - Coordinate on positions
 - Read the reports



SUMMARY



- **NBC is alive and well in NATO---as a priority area.**
- **NBC in operations other than war, bio defense are hottest items.**
- **STANAGs are the name of the game---drive doctrine and equipment.**
- **Influencing STANAGs requires early-on commitment---writing drafts, providing detailed comments, developing meeting positions.**

